

Appl. No. 09/938,892
Amdt. Dated July 5, 2004
Reply to Office action of April 19, 2004

Amendments to the Claims

This listing of claims will replace the prior listing of claims in the application.

Listing of Claims:

Claim 1 (withdrawn): A method for forming a base of a heat sink on which heat dissipating fins are attached, the base comprising a body made of a first metal having a first heat conductivity and a core made of a second metal having a second heat conductivity higher than the first heat conductivity, the method comprising the following steps:

- a) defining an opening in the body which has a shape corresponding to a shape of the core and a size slightly less than a size of the core;
- b) pressing the core into the opening of the body;
- c) stamping the core to cause it to plastically deform in radial directions and thereby become firmly combined with the body.

Claim 2 (withdrawn): The method as claimed in claim 1, further comprising the following step after step c): d) removing any burring of the core flowing out from the opening such that surfaces of the core and the body are coplanarly smooth.

Claim 3 (withdrawn): The method as claimed in claim 2, wherein the opening is circular and the core is circular, and a diameter of the opening is slightly less than a diameter of the core.

Claim 4 (withdrawn): The method as claimed in claim 3, wherein the opening is a through opening and is defined in a center of the body.

Claim 5 (withdrawn): The method as claimed in claim 1, wherein the body is made of aluminum and the core is made of copper.

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Claim 6 (withdrawn): A method for forming a heat sink for dissipating heat generated by an electronic device, the method comprising the following steps:

- a) preparing a base (10), the preparing comprising the steps of:
 - i) providing a body (11) made of a first metal having a first heat conductivity, said body (11) being formed with an opening (111) therein;
 - ii) providing a core (12) made of a second metal having a second heat conductivity higher than the first heat conductivity, said core (12) having a shape corresponding to a shape of the opening (111) and a size slightly larger than a size of the opening (111), said core (12) having a bottom face (121) adapted for thermally contacting the electronic device;
 - iii) pressing the core (12) into the opening (111); and
 - iv) stamping the core (12) to cause it to plastically deform in radial directions, whereby the core (12) and the body (11) are securely connected together; and
- b) Preparing heat dissipating fins (20) and attaching the fins (20) to the base (10).

Claim 7 (withdrawn): The method as claimed in claim 6, further comprising the following step after step iv): v) removing any burring of the core (12) flowing out from the opening (111) such that surfaces of the core (12) and the body (11) are coplanarly smooth.

Claim 8 (withdrawn): The method as claimed in claim 6, wherein the opening (111) is circular and the core (12) is circular, and a diameter of the opening (111) is slightly less than a diameter of the core (12).

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Claim 9 (withdrawn): The method as claimed in claim 8, wherein the opening (111) is a through opening and is defined in a center of the body (11).

Claim 10 (withdrawn): The method as claimed in claim 6, wherein the body (11) is made of aluminum and the core (12) is made of copper.

Claim 11 (currently amended) A heat sink comprising a base (10) including a body (11) defining a through opening (111) in a center portion, and a core (12) being plastically deformed to be snugly and tightly retainably received in the opening (111), said core providing a bottom face (121) adapted to be engaged with ~~an~~ a heat-generating device, a plurality of heat dissipation fins (20) attached to a top face of the base, wherein said body (11) is made of a first material having a first conductivity thereof and said core (12) is made of a second material having thereof a second conductivity superior to said first conductivity.

Claim 12 (new) The heat sink as claimed in claim 11, wherein the core is plastically deformed outwardly in the opening to thereby firmly combine with the body.

Claim 13 (new) The heat sink as claimed in claim 12, wherein the core has a diameter slightly larger than a diameter of the opening before the core is received in the opening.